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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,273	02/19/2002	Masatoshi Fujimoto	046124-5114	1054

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EXAMINER
RICHARDSON, JOHN A

ART UNIT	PAPER NUMBER
3641	

DATE MAILED: 08/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/076,273	FUJIMOTO ET AL.	
	Examin r	Art Unit	
	John Richardson	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 2* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Non Final Rejection

1). 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2). The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3). The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4). The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5). The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6). The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7). The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, 1.e., failing to provide enabling disclosure.

The is no reputable evidence of record to support the allegations or claims that the invention is capable of operating as indicated in the specification, that any allegations or claims of laser energy directed at a source material, item R, as described in the specification, page 10, lines 17+, as natural water, contains the necessary synthesis of for example, N-13, to produce the results depicted in the equations listed on pages 33, 34.

It appears to be the inventor's assertion that the results of laser energy directed at sources of water will induce a nuclear reaction and result in the production of radioisotopes.

Specifically, it is noted that it is well known to user laser energy in optical surgery techniques for repairing tears on human eye retina and in these procedures the laser light photons are in contact with water containing materials such as water in tear eye ducts and the vitreous humor of the eye. Based on these procedures there is no evidence that radioisotopes are produced by laser energy passing through such water sources.

The applicant's specification contains assumptions and speculation as to how in what manner, the invention will operate. Indeed, the applicant appears to be basing the operativeness of his invention on various approximations, estimations, assumptions, etc., set forth, for example, on the following pages:

- Page 7, lines 15, 16, stating desired postions and orientations for locating the laser light source.
- Page 8, lines 2 to 5, stating that the nuclear reaction field is always small.
- Page 9, lines 15, 16, stating that whole or part of the optical laser system can be incorporated as the occasion demands without defining what such occasions may consist.
- Page 17, stating that when water is the target material source, N-13 is produced and other materials such as, nitric oxide, ammonia and nitrogen molecules adhere to copper surfaces. There is no evidence of record for making these assumptions.

- Page 18, lines 11+, stating that collecting means are provided for discriminating and collecting only necessary P-1 molecules. There is no evidence of record for making these assumptions.
- Page 18, lines 21+, stating that a specific type and thickness of radiation shielding is provided without stating what are the controlling radionuclides in this respect.
- Page 22, lines 19+, stating optimal molecule cluster size for inducing efficient nuclear reaction. There is no basis provided for defining what is considered an efficient nuclear reaction, nor any basis for establishing the operating parameters for establishing the basis for optimal molecule cluster size.
- Page 24, lines 12+, stating that a range of particles, such as alpha's, neutrons, photons are generated by the alleged nuclear reaction, without providing evidence of the operating mechanisms for producing such charged particles.
- Page 24, lines 17 to 24, stating that a monitoring and controlling means are required for example, for neutrons and photons, without defining what types and in what manner such monitoring and controlling operations are achieved.
- Page 31, lines 8+, stating that a time of one nanosecond is necessary for operating the applicant's device, without providing the theoretical basis for such a time period and without defining the means for achieving such time periods of operation.

- Page 33, line 12, page 35, lines 3 to 8, introducing a series of nuclear reaction equations without providing any basis for claiming that the applicant's invention can result in such nuclear reactions.

It is thus considered that the examiner (for the reasons set forth above) has set forth a reasonable and sufficient basis for challenging the adequacy of the disclosure. The statute requires the applicant itself to inform, not direct others to find out for themselves: *In re Gardner et al*, 166 USPQ 138, *In re Scarbrough*, 182 USPQ 298. Note that the disclosure must enable a person skilled in the art to practice the invention without having to design structure not shown to be readily available in the art: *In re Hirsch*, 131 USPQ 198.

8). Claims 1, 2 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility.

The reasons the invention as disclosed is inoperative are the same as the reasons set forth in section 7) above as to why the specification is objected to and the reasons set forth in section 7) above are incorporated herein.

There is no reputable evidence of record to indicate the invention has been reduced to the point of providing in current available form, an operative nuclear fusion device based on directing an optical laser light at a water source in a vacuum vessel produce radioisotopes.

The applicant at best, has set forth what may be considered a concept or an object of scientific research. However, it has been held that such does not represent a utility within the meaning of 35 USC 101, See Brenner v. Manson, 148 USPQ 689.

Additionally, it is well established that where as here, the utility of the claimed invention is based on allegations that border on the incredible or allegations that would not be readily accepted by a substantial portion of the scientific community, sufficient substantiating evidence of operability must be submitted by the applicant. Note In re Houghton, 167 USPQ 687 (CCPA 1970), In re Ferens 163 USPQ 609 (CCPA 1969), In re Puharich v. Brenner, 162 USPQ 136 (CADC 1969), In re Pottier 152 USPQ 407 (CCPA 1967), In re Rushkin, 148 USPQ 221 (CCPA 1966), In re Citron, 139 USPQ 516 (CCPA 1963), and In re Novak, 134 USPQ 335 (CCPA 1962).

9). Claims 1, 2 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The reasons that the invention as disclosed is not enabling are the same as the reasons set forth in section 7) above as to why the specification is objected to and the reasons set forth in section 7) above are accordingly incorporated herein.

10). Claims 1, 2 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Referring to claim 1 there is no proper support in the original disclosure for claimed nuclear reaction based on source materials disclosed (natural water) for using a laser optical system as the irradiating means.

11). Claims 1, 2 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon

The specification appears to set forth positive results on for example, pages 8 to 37, for achieving the claimed fusion reaction using a water source and an optical laser system to produce radioisotopes, and the logical conclusion is that the applicant was aware of all the system parameters needed to give the indicated positive results but failed to disclose such said system parameters including exact size, dimensions and composition (including degree of purity and impurities present), operating power requirements, operating temperatures and pressures, time periods for operations, etc., assembly of apparatus and materials of manufacture, instrumentation calibration during and after experiments, etc.

As indicated in the MPEP 2165 and Union Carbide Corp v. Borg-Warner, 193 USPQ 1, "Failure to disclose the best mode need not rise to the level of active

concealment or grossly inequitable conduct in order to support a rejection or invalidate a patent. Where an inventor knows of a specific material that will make possible the successful reproduction of the effects claimed by the patent, but does not disclose it, speaking instead in terms of broad categories, the best mode requirement has not been satisfied. See also, Spectra v. Coherenmt, 3 USPQ 2d 1737.

12). Claim 1, 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Whittlesey (U.S. 3,378,446).

The reference discloses nuclear fusion devices comprising vacuum vessels (item C, item 13, Column 4, lines 3 to 6), a supply source of nuclides (deuterium-tritium test particles) subjected to an optical system of pulsed laser sources (lasers items B), resulting in the production of radioisotopes (particle of fusionable material, Column 6, lines 1 to 9) with the said vessels walls having radiation shielding capability (shell walls item 13).

In relation to claim 2, the reference discloses a dispensing / control capability for controlling the source supply (item D, Column 4, lines 7 to 34, Column 5, lines 46 to 58) and a means of determining / monitoring the said fusionable products (chamber A, Column 3, lines 25 to 36).

13). Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hedstrom (U.S. 3,762,992).

The reference discloses nuclear fusion devices comprising vacuum vessels (item 15, Column 3, lines 59+), a supply source of nuclides (item 9) subjected to an optical system of pulsed laser sources (item 8), resulting in the production of radioisotopes (fusion products) and collected in a collection means (item 17) with the said vessels walls having radiation shielding capability (item 14).

14). The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15). Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Richardson whose telephone number is (703) 305 0764. The examiner can normally be reached on Monday to Thursday from 7.00 AM to 4.30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306 4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 305 7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1113.

John Richardson, PE,

August 08 2002.

MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER

SUPERVISORY PATENT EXAMINER